Weather Company Data - Enhanced Forecast | Precipitation Forecast - v1

Domain Portfolio: Forecast | Domain: Short-Range Forecast | Usage Classification: **Limited Availability**

Geography: Global **Attribution Required:** NO **Attribution Requirements:** N/A

Overview

The Precipitation Events Forecast API provides a weather forecast for precipitation events(rain, snow, sleet, freezing rain) onset and offset times for 28 time steps over the next 7 hours.

Understanding the Precipitation Forecast-Forecast Composition

1. The Precipitation Events Forecast (aka "onset/offset", aka "precip events") is the summary "events" of the raw 15-minute data. In practice 24 time steps are almost never returned. There is often only 1 event (e.g., "dry through the entire 6hr period"). However, there will always be at least one event returned. While the theoretical maximum is 24 events, in practice it rarely goes above 10-12 events.
2. During a 6 hour period if the weather changes from dry to cloudy to rain or snow then you have a record for each part with start time and end time. Unlike like hourly or other time sliced forecast that are based on time period. This forecast is based on weather events and not on time.

Understanding the Precipitation Forecast-Forecast Implementation

To request and display the Precipitation Events product. You need not pass a parameter to select an hour or day. Each request will return the full precipitation events for the next 6 hours.

HTTP Headers and Data Lifetime - Caching and Expiration

For details on appropriate header values as well as caching and expiration definitions, please see **The Weather Company Data | API Common Usage Guide**.

Translated Fields:

This TWC API handles the translation of phrases. However, when formatting a request URL a valid language must be passed along (see the language code table for the supported codes).

- characteristic
- event_type
- intensity
- severity

Unit of Measure Requirement

The unit of measure for the response. The following values are supported:

- e = English units
- m = Metric units
- h = Hybrid units (UK)

URL Construction

Atomic API URL Examples:	**Aggregate Product Name**	v2fcstprecip
Request by Geocode (Latitude & Longitude): Required Parameters: language, format, units, geocode, apiKey=**yourApiKey**		
https://api.weather.com/v1/geocode/34.063/-84.217/forecast/precipitation.json?language=en-US&units=e&apiKey=yourApiKey		
Request by Postal Code: Required Parameters: language, format, units, postal code apiKey=**yourApiKey** The Postal Code has a TWC proprietary location type (4) with the following format: location/<postal code>:<location type>:<country code>		
https://api.weather.com/v1/location/30075:4:US/forecast/precipitation.json?language=en-US&units=e&apiKey=yourApiKey		

Data Elements & Definitions

Note: Field names are sorted alphabetically in the table below for presentation purposes. The table below does not represent the sort order of the API response.

Field Name	Description	Type	Range	Sample	Nulls Allowed
characteristic	A number which corresponds to the precipitation characteristic description. 0 = none, 1 = intermittent, 2 = continuous	Integer	0 - 2	1	N
class	Data identifier	string		fod_short_range_precipitation	N
event_end	The end time for a forecasted precipitation event in UNIX seconds.	epoch		1369252800	N
event_end_local	The local end time for a forecasted precipitation event in UNIX seconds in the location's local time.	ISO	YYYY-MM-DDTHH:MM:SS-NNNN; NNNN=GMT offset	2014-08-20T10:47:59-0500	N
event_start	The start time for a forecasted precipitation event in UNIX seconds.	epoch		1369252800	N
event_start_local	The start time for a forecasted precipitation event in UNIX seconds in the location's local time.	ISO	YYYY-MM-DDTHH:MM:SS-NNNN; NNNN=GMT offset	2014-08-20T10:47:59-0500	N
event_type	A number which corresponds to the precipitation event type description. 0=none, 1=rain, 2=snow, 3=mix, 4=thunder	Integer	0 - 4	2	N
imminence	A number which corresponds to the imminence of precipitation as a color. 0 = green, 1 = yellow, 2 = red	Integer	0 - 3	1	N
intensity	A number which corresponds to the precipitation intensity description. 0 = none, 1 = light, 2 = moderate, 3 = heavy	Integer	0 - 3	1	N
num	Precipitation event number within the API response	Integer	Usually less than 10	7	N
qpf	The measurable precipitation (liquid or solid) during a given forecasted event.	Decimal	0 to 99.99	5.65	N
severity	A number which corresponds to the precipitation severity.	Integer	1 through 6 , 1=lowest...6=highest	6	N
snow_qpf	The forecasted measurable precipitation as snow during the forecast event.	Decimal	0 to 999.99	123.9	N

JSON Sample


```
{
   "metadata": {
      "language": "en-US",
      "transaction_id": "1473206165118:2068731322",
      "version": "1",
      "latitude": 34.06,
      "longitude": -84.21,
      "units": "e",
      "expire_time_gmt": 1473206600,
      "status_code": 200
   },
   "forecasts": [
      {
         "class": "fod_short_range_precipitation",
         "expire_time_gmt": 1473206600,
```

```
        "num": 1,
        "event_start": 1473206400,
        "event_end": 1473231600,
        "event_start_local": "2016-09-06T20:00:00-0400",
        "event_end_local": "2016-09-07T03:00:00-0400",
        "event_type": 0,
        "intensity": 0,
        "severity": 1,
        "characteristic": 0,
        "imminence": 0,
        "qpf": 0,
        "snow_qpf": 0
      }
   ]
}
```